

ABSTRACT OF THE DISCLOSURE

A multi-mode shutdown system in combination with a fuel metering unit of an engine to prevent normal fuel delivery during engine malfunction such as the engine overspeeding. The multi-mode shutdown system includes a shutdown solenoid capable of closing a pressurizing valve to prevent fuel flow to the engine for creating a shutdown mode of operation with no fuel flow to the engine. The multi-mode shutdown system also includes a minimum flow solenoid in fluid communication a source of fuel at a minimum flow rate for creating a minimum flow mode of operation with fuel provided to the engine at the minimal flow rate. In the minimum flow mode, the shutdown solenoid and minimum flow solenoid establish a flow path for the fuel to the engine manifold at the minimal flow rate. During normal operation, the fuel metering unit regulates the fuel flow to the engine.